Arboricultural Appraisal Report

Subsidence Damage Investigation at:

89 Arlington Road
London
NW1 7ES

CLIENT:	[redacted]
CLIENT REF:	
MWA REF:	
MWA CONSULTANT:	Andy Clark
REPORT DATE:	17/10/2023

SUMMARY

Statutory Controls			Mitigation (Current claim tree works)	
TPO current claim	No		Policy Holder	Yes
TPO future risk	No		Domestic 3rd Party	No
Cons. Area	Yes		Local Authority	No
Trusts schemes	No		Other	No
Local Authority: -	London Borough of Camden			

[redacted]

Introduction

Acting on instructions from QuestGates, the insured property was visited on 26/09/2023 to assess the potential role of vegetation in respect of subsidence damage.

We are instructed to provide opinion on whether moisture abstraction by vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

This is an initial appraisal report and recommendations are made with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third-party trees is excluded and third-party owners are advised to seek their own advice on tree health and stability of trees under their control.

Property Description

The property comprises a mid-terrace house of traditional construction arranged over 5-floors which includes a basement and loft conversion. The property has been extended with a single-storey addition to the rear. The site is generally level with no adverse topographical features.

Damage Description & History

Damage relates to the rear extension where cracking indicates downward movement.

At the time of the engineer's inspection the structural significance of the damage was found to fall within Category 4 (Severe) of Table 1 of BRE Digest 251. For a more detailed synopsis of the damage please refer to the surveyor's technical report.

We have not been made aware of any previous claims.

Note: The rear garden of the building was not accessible at the time of our site visit, as distortions of the rear extension had caused the rear door to be inoperable. Vegetation was assessed and recorded from what could be viewed from upper-floor rear windows.

Geology / Soils

The online 1:50 000 scale British Geological Survey map records the bedrock geology as London Clay Formation - Clay, silt and sand. No superficial deposits are recorded. BGS records for this area also include historic borehole logs which record clay soils.

[redacted]

Discussion

Opinion and recommendations in this report are made on the understanding that QuestGates have identified clay shrinkage subsidence as a cause of building movement and damage.

Published soil maps indicate the underlying soils include or are likely to include a clay component susceptible to undergoing volumetric change with changes in soil moisture. Moisture abstraction by vegetation has the potential to cause soil shrinkage and consequent subsidence of the building.

Our survey has identified vegetation within influencing distance of the building with a current potential to influence soil volumes below foundation level; the most significant of which is the TG1 group of Crab Apple with Pyracantha and Juniper understorey.

Based on the information currently available, engineering opinion and our own site assessment we conclude the damage appears consistent with shrinkage of the clay fraction due to the soil drying effects of vegetation.

If an arboricultural solution is to be implemented to mitigate the influence of the trees/shrubs considered to be responsible for the damage we recommend that TG1 group is removed.

Consideration has been given to pruning alone as a means of mitigating the vegetative influence, however in this case, this is not considered to offer a viable long-term solution due to the proximity of the responsible vegetation.

Conclusions

- Conditions necessary for clay shrinkage subsidence to occur related to moisture abstraction by vegetation have been confirmed by reference to published soil maps.
- Engineering opinion is that the damage is related to clay shrinkage subsidence.
- There is significant vegetation present with the potential to influence soil moisture and volumes below foundation level.
- Replacement planting may be considered subject to species choice and planting location.

[redacted]

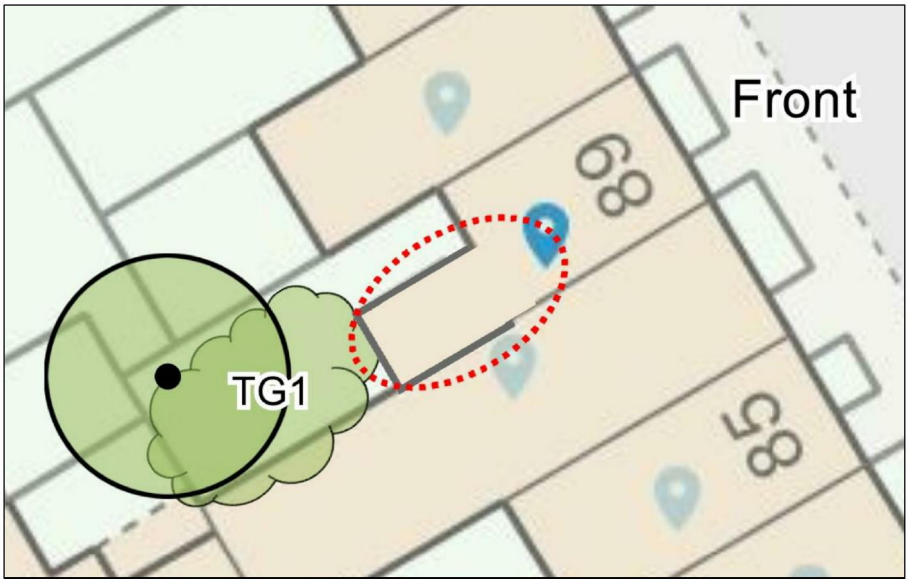
Table 1 **Current Claim** - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
TG1	Purple Crab with Pyracantha and Juniper understorey	13.0	400 *	12.5 *	1.0	Younger than Property	Policy Holder
Management history		No significant past management noted.					
Recommendation		Remove (fell) all to near ground level and treat stumps to inhibit regrowth.					

Ms: multi-stemmed * Estimated value

[redacted]

Site Plan



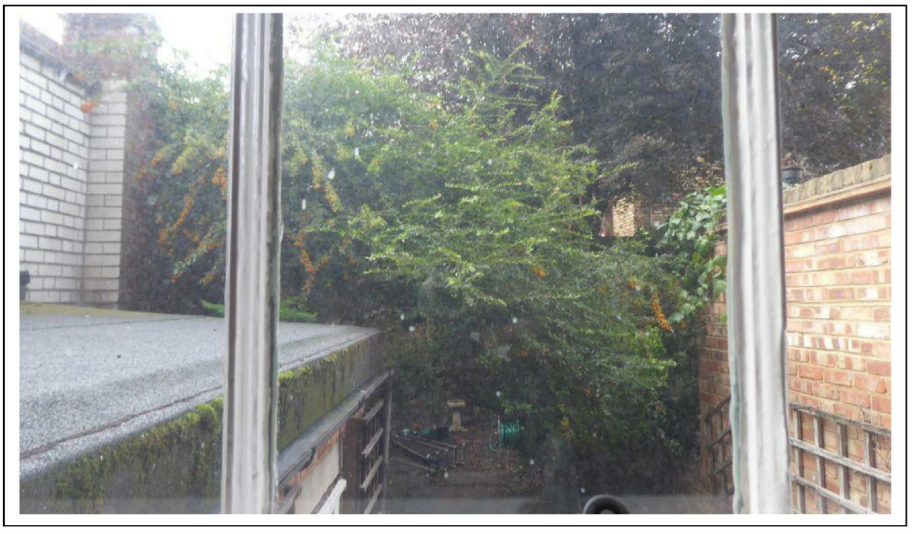
Plan not to scale – indicative only

Approximate areas of damage

[redacted]

Images

View from upper level window of TG1 group beyond rear extension



View of TG1 group

[redacted]